



City of San Diego
Development Services Department
Plan Review Division
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Building Newsletter 18-1

Soil Classification and Allowable Bearing Value

Interpretations of State and Local Building Codes
1994 Uniform Building Code: Chapter 18
Revision Date: January 1996

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I. Natural Ground

Plans for all buildings and structures supported on natural ground require a preliminary soil report unless the foundations have been designed in accordance with either Table No. 18-I-A or 18-I-D of the Uniform Building Code.

When the foundation design is based on Table No. 18-I-A, the foundation plan must indicate the allowable soil bearing value and soil classification and must be signed by a civil engineer or architect licensed by the State of California. One- and two-story buildings of Type V construction designed for an allowable soil bearing value not to exceed 1,000 pounds per square foot (psf) are exempt from this requirement. When the allowable foundation pressure exceeds the values of Table No. 18-I-A, a preliminary soil report must be submitted with the plans. The preliminary soil report shall be prepared per the City of San Diego's *Technical Guidelines for Geotechnical Reports* manual.

II. Compacted Fill

Plans for all buildings and structures supported on compacted fill require a preliminary soil report and a report of satisfactory placement of fill prepared by a licensed civil engineer.

A. When such a report indicates that the soil has been compacted to less than 90 percent relative compaction (defined as 90 percent of the maximum dry density determined in accordance with ASTM Test No. D-1557-78), an allowable soil bearing value must be specified in the report.

B. When the compaction report indicates that the soil has been compacted to at least 90 percent relative compaction, but does not specify an allowable soil bearing value, the maximum bearing value that may be used for design is 1,000 psf.

III. Expansive Soil

See Building Newsletter 18-2 for a detailed discussion of policies related to expansive soil.

A. When a preliminary soil report is submitted to the Development Services Department it must include an allowable soil bearing value, expansion index tests and recommendations for foundation and slab design by a qualified civil engineer.

B. If the Building Official determines that expansive soil may be present in accordance with Section 1804.4 of the UBC a preliminary soil report, including allowable soil bearing value, expansion index tests and foundation design recommendations, is required.